

This is an addition of about 50 species to a previous "preliminary list"<sup>1</sup> (which we have not seen), published in April, 1903, which makes "a total of 206 species now recorded from the County." The nominal list of additions is followed by several pages of interesting annotations, those on the Juncos (of which six species are listed) and the White-necked Raven being of special interest.—J. A. A.

**Preliminary Review of the Birds of Nebraska.**<sup>2</sup>—This 'preliminary review' is under the joint authorship of Messrs. Lawrence Bruner, Robert H. Walcott, and Myron H. Swenk. An introduction of two pages states the origin, purpose, and scope of the work, and the share each author had in its preparation. It also states that, preliminary as it is in the sense of being the forerunner, it is hoped, of a more elaborate work to appear later, "it has been prepared with the greatest care, and is believed to represent exactly the state of our knowledge at the present day." The introduction is followed by an essay by Professor Bruner on 'Birds in their Relation to Agriculture and Horticulture' (pp. 5-11), in which it is stated that 400 different kinds of birds have been found within the State of Nebraska, of which 200 are known to nest within the State. The 'Synopsis and List,' forming the main text (pp. 15-116), is preceded by two pages of cuts and explanations illustrating the 'Topography of Bohemian Waxwing for Beginners,' which, with the 'synopses,' is designed to make the work useful to those who are not ornithologists, and so aid in increasing interest in birds "and advancing the cause of bird protection." The 'synopses' are in the nature of 'keys,' to the higher groups as well as to the species and subspecies, and are based (with acknowledgments) on those in Apgar's 'Birds of the Eastern United States.' As the keys are printed in the same style and size of type as the list, the different kinds of matter are not obvious except on actual inspection of the text. The numeration, as well as the nomenclature, is that of the A. O. U. Check-List, but a special or consecutive numeration could have been added (in parenthesis after the A. O. U. No.) with advantage, especially in the absence of any general summary of the list. Species previously attributed to the State on what is now considered unsatisfactory evidence, as well as those of probable occurrence but not yet detected, are included, both in the keys and in the list, but in the list are properly distinguished from the authenticated species,—the first by being placed between brackets, and the latter by the designation 'extra-linnital.' The list is thus apparently all the authors claim for it—a careful exposition of

<sup>1</sup> *Ibid.*, Vol. I, No. 3, April, 1903.

<sup>2</sup> A | Preliminary Review | of the | Birds of Nebraska | with Synopses | — | By | Lawrence Bruner, Robert H. Walcott, Myron H. Swenk — (No date nor publisher's imprint on title page.) Rlopp & Bartlett Co., Omaha, Neb. Svo. pp. 1-116, and an unpagged index of 5 leaves.

present knowledge of the birds of Nebraska, and as such, with its included 'synopses,' must prove of great assistance to students of Nebraska ornithology, as well as an important contribution to faunal literature. —J. A. A.

**Scott on the Inheritance of Song in Passerine Birds.** — In two recent papers in 'Science'<sup>1</sup> Mr. Scott continues the relation of his interesting observations in regard to the growth, changes of plumage, song, and nest-building of hand-reared Rose-breasted Grosbeaks and Meadowlarks. On June 19, 1903, three young Grosbeaks, then about five days old, were taken from the nest and successfully reared by hand in the author's aviary, and were thus excluded from contact with wild birds of their own species. They had moulted by September into the usual fall dress of the species, and the second moult was completed early in February, this including the tail feathers but not the wing quills, which latter, however, underwent some change in color. Just what the change was is not stated, but as to the 'how' of the change Mr. Scott tells us, in italic type, "I am strongly inclined to the opinion that there is a physical change in the feather itself, which alters its appearance so far as color is concerned"; or, as he says again, the primaries "attain their brilliancy either by wear or by direct change in the color of the feather." As this is given as his "opinion," we naturally wait with interest for some *proof* that this opinion has some basis of fact, since the well-established facts thus far are quite opposed to such a belief.

Soon after the Grosbeaks, of which two were males and the other a female, had recovered from their second moult the males began to make feeble attempts at song, which presently increased in volume, and while extremely musical and possessing "the soft plaintive quality characteristic of the Rose-breasted Grosbeak," "no one would refer the *method* of song to the bird in question." In the second report on these birds, and referring to the third week in May, 1904, the song is described as "absolutely and entirely different from the song of the Rose-breasted Grosbeak as it is heard when wild out of doors." The two male Grosbeaks had then for some time been kept in cages adjacent to a Hardwick's Bulbul, and by the middle of May their songs "were so close an imitation of the insistent song of the Bulbul that it was difficult, when not looking at the birds, to tell which species was singing."

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<sup>1</sup> The Inheritance of Song in Passerine Birds. Remarks on the Development of Song in the Rose-breasted Grosbeak, *Zamelodia ludoviciana* (Linnæus), and the Meadowlark, *Sturnella magna* (Linnæus). By William E. D. Scott. *Science*, N. S., Vol. XIX, No. 495, pp. 957-959, June 14, 1904.

The Inheritance of Song in Passerine Birds. Further Observations on the Development of Song and Nest-building in Hand-reared Rose-breasted Grosbeaks, *Zamelodia ludoviciana* (Linnæus). *Ibid.*, Vol. XX, No. 504, pp. 282, 283, Aug. 26, 1904.